

## **What is claimed is:**

**[Claim 1]** 1. A computer-implemented method comprising:

executing boot-time code stored in a non-volatile store associated with a peripheral device, wherein executing the boot-time code includes actions of:  
reading identification numbers from the peripheral device; and  
writing a signature to a configuration space of the peripheral device based on the identification numbers.

**[Claim 2]** 2. The method of claim 1, wherein the identification numbers include a vendor identification number and a device identification number.

**[Claim 3]** 3. The method of claim 2, wherein the identification numbers include a subsystem vendor identification number and a subsystem device identification number.

**[Claim 4]** 4. The method of claim 1, wherein the signature is written to a scratchpad register in the configuration space of the peripheral device.

**[Claim 5]** 5. The method of claim 1, further comprising:

executing device driver code associated with a device driver, wherein executing the device driver code includes actions of:  
reading the signature from the configuration space of the peripheral device;  
determining whether the signature denotes that the device driver may be loaded for the peripheral device; and  
in response to a determination that the signature denotes that the device driver may be loaded for the peripheral device, loading the device driver.

**[Claim 6]** 6. The method of claim 5, wherein the signature denotes that the device driver may be loaded for the peripheral device if the signature matches a second signature associated with the device driver.

**[Claim 7]** 7. A computer-implemented method comprising:

reading a signature from a configuration space of a peripheral device, wherein the signature is distinct from identification numbers of the peripheral device;

determining whether the signature denotes that a particular device driver may be loaded for the peripheral device; and

in response to a determination that the signature denotes that the particular device driver may be loaded for the peripheral device, loading the particular device driver.

[Claim 8] 8. The method of claim 7, wherein the signature denotes that the particular device driver may be loaded for the peripheral device if the signature matches a second signature associated with the device driver.

[Claim 9] 9. The method of claim 7, wherein the identification numbers include a vendor identification number and a device identification number.

[Claim 10] 10. The method of claim 9, wherein the identification numbers include a subsystem vendor identification number and a subsystem device identification number.

[Claim 11] 11. The method of claim 7, wherein the signature is read from a scratchpad register in the configuration space of the peripheral device.

[Claim 12] 12. A computer program product comprising:

a first computer-readable medium containing first functional descriptive material that, when executed by a computer, directs the computer to perform actions that include:

reading identification numbers from the peripheral device; and  
writing a signature to a configuration space of the peripheral device based on the identification numbers.

[Claim 13] 13. The computer program product of claim 12, wherein the identification numbers include a vendor identification number and a device identification number.

[Claim 14] 14. The computer program product of claim 13, wherein the identification numbers include a subsystem vendor identification number and a subsystem device identification number.

**[Claim 15]** 15. The computer program product of claim 12, wherein the first computer-readable medium is a non-volatile store associated with the peripheral device.

**[Claim 16]** 16. The computer program product of claim 12, further comprising:

a second computer-readable medium containing second functional descriptive material associated with a device driver, wherein the computer's executing the second functional descriptive material directs the computer to perform actions that include:

reading the signature from the configuration space of the peripheral device;

determining whether the signature denotes that the device driver may be loaded for the peripheral device; and

in response to a determination that the signature denotes that the device driver may be loaded for the peripheral device, loading the device driver.

**[Claim 17]** 17. The computer program product of claim 16, wherein the signature denotes that the device driver may be loaded for the peripheral device if the signature matches a second signature associated with the device driver.

**[Claim 18]** 18. A computer program product in a computer-readable medium comprising functional descriptive material that, when executed by a computer, directs the computer to perform actions that include:

reading a signature from a configuration space of a peripheral device, wherein the signature is distinct from identification numbers of the peripheral device;

determining whether the signature denotes that a particular device driver may be loaded for the peripheral device; and

in response to a determination that the signature denotes that the particular device driver may be loaded for the peripheral device, loading the particular device driver.

**[Claim 19]** 19. The computer program product of claim 18, wherein the signature denotes that the particular device driver may be loaded for the peripheral device if the signature matches a second signature associated with the device driver.

**[Claim 20]** 20. The computer program product of claim 18, wherein the identification numbers include a vendor identification number and a device identification number.

**[Claim 21]** 21. The computer program product of claim 20, wherein the identification numbers include a subsystem vendor identification number and a subsystem device identification number.

**[Claim 22]** 22. The computer program product of claim 18, wherein the signature is read from a scratchpad register in the configuration space of the peripheral device.

**[Claim 23]** 23. A peripheral device comprising:

- at least one non-volatile store;

- an interface adapted to provide connectivity between the at least one non-volatile store and a computer system; and

- a set of instructions within the at least one non-volatile store, wherein the set of instructions are adapted to be executed by the computer system so as to direct the computer system to perform actions that include:

- reading identification numbers from the peripheral device; and

- writing a signature to a configuration space of the peripheral device based on the identification numbers.

**[Claim 24]** 24. The peripheral device of claim 23, wherein the identification numbers include a vendor identification number and a device identification number.

**[Claim 25]** 25. The peripheral device of claim 24, wherein the identification numbers include a subsystem vendor identification number and a subsystem device identification number.

**[Claim 26]** 26. The peripheral device of claim 23, wherein the signature is written to a scratchpad register in the configuration space of the peripheral device.

**[Claim 27]** 27. A data processing system comprising:

- at least one processor;
- at least one memory;
- a peripheral device having a non-volatile store;
- a first set of instructions in the non-volatile store, wherein the at least one processor executes the first set of instructions to perform actions of:
  - reading identification numbers from the peripheral device; and
  - writing a signature to a configuration space of the peripheral device based on the identification numbers; and
- a second set of instructions in the at least one memory, wherein the at least one processor executes the second set of instructions to perform actions of:
  - reading the signature from the configuration space of the peripheral device;
  - determining whether the signature denotes that a particular device driver may be loaded for the peripheral device; and
  - in response to a determination that the signature denotes that the particular device driver may be loaded for the peripheral device, loading the particular device driver.

**[Claim 28]** 28. The data processing system of claim 27, wherein the signature denotes that the particular device driver may be loaded for the peripheral device if the signature matches a second signature associated with the device driver.

**[Claim 29]** 29. The data processing system of claim 27, wherein the identification numbers include a vendor identification number and a device identification number.

**[Claim 30]** 30. The data processing system of claim 29, wherein the identification numbers include a subsystem vendor identification number and a subsystem device identification number.

**[Claim 31]** 31. The data processing system of claim 27, wherein the signature is read from a scratchpad register in the configuration space of the peripheral device.